CLAIMS

What is claimed is:

1. Procedure to increase the manipulation security for a bi-directional contactless data transmission by means of a first transmission and receiver unit (BA) and a second transmission and receiver unit (TR)

   - **wherein**
   - the second transmission and receiver unit (TR), on receipt of a transmitted electromagnetic signal (fULmod) from the first transmission and receiver unit (BA), will convert this signal relative to at least one selected physical quantity into a response signal (f'DLmod) and re-transmit the same to the first transmission and receiver unit (BA), and
   - on receipt of the response signal (f''DLmod), the first transmission and receiver unit (BA) will convert this response signal with regard to the selected physical quantity into a test signal (f''UL) such that this will compensate the conversion effected in the second transmission and receiver unit (TR), and
   - finally, in the first transmission and receiver unit (BA) a comparison between the test signal (f''UL) and the transmitted electromagnetic signal (fUL) is effected, and
   - as a result (CF) of this comparison a value is assigned to a manipulation indication.

2. Procedure according to Claim 1 **wherein** it is investigated for the comparison within a time period t, whether there is a fixed relationship with regard to the selected physical quantity.

3. Procedure according to Claim 1 **wherein,** if the result (CF) of the comparison is below a selected limit value, the manipulation indication is assigned the value 0.

4. Procedure according to Claim 1 **wherein** this comparison (SP) will preferably be completed within a period t1 of 300ms max. following the transmission of the original electromagnetic signal (fULmod).

5. Procedure according to Claim 1 **wherein** as a physical quantity for the comparison (SP) the phase, amplitude, or frequency of the test signal is used.

6. Procedure according to Claim 1 wherein data information is modulated onto the electromagnetic signal (fUL, f'DL) by means of frequency or amplitude modulation.

7. Procedure according to Claim 1 wherein the comparison (SP) is effected only by means of the frequency of the electromagnetic signal (f''UL, fUL).

8. Procedure according to Claim 1 wherein, in the second transmission and receiver unit (TR), the frequency of the received electromagnetic signal (f'UL) is multiplied with a number (Z), and, in the first transmission and receiver unit (BA), the frequency of the received electromagnetic signal (f''DL) is divided by this number (Z).

9. Procedure according to Claim 8 wherein the multiplication and division is effected by means of a ratio made up of two natural numbers.

10. Procedure according to Claim 7 ~~and Claim 8~~ wherein, if the result (CF) of the frequency comparison is below a selected limit value, the manipulation indication is assigned the value 0.

add A1